

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/552,896  
Source: IFWP  
Date Processed by STIC: 9/01/2006

# ***ENTERED***

**CRF Errors Edited by the STIC Systems Branch**

Serial Number: 10/552, 896

CRF Edit Date: 9/01/2006  
Edited by: DA

\_\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_\_ Deleted: \_\_\_\_ invalid beginning/end-of-file text ; \_\_\_\_ page numbers

\_\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_\_ Other:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



IFWP

## RAW SEQUENCE LISTING

DATE: 09/01/2006

PATENT APPLICATION: US/10/552,896

TIME: 12:13:41

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\09012006\J552896.raw

3 <110> APPLICANT: Neose Technologies, Inc.  
 4 DeFrees, Shawn  
 5 Zopf, David  
 6 Bayer, Robert  
 7 Hakes, David  
 8 Chen, Xi  
 9 Bowe, Caryne

11 <120> TITLE OF INVENTION: GLYCOPEGYLATION METHODS AND PROTEINS/PEPTIDES PRODUCED BY  
 THE

12 METHODS

14 <130> FILE REFERENCE: 040853-5051-US01

16 <140> CURRENT APPLICATION NUMBER: US 10/552,896

17 <141> CURRENT FILING DATE: 2005-10-11

19 <150> PRIOR APPLICATION NUMBER: US 10/411,012

20 <151> PRIOR FILING DATE: 2003-04-09

22 <150> PRIOR APPLICATION NUMBER: US 10/411,026

23 <151> PRIOR FILING DATE: 2003-04-09

25 <150> PRIOR APPLICATION NUMBER: US 10/410,962

26 <151> PRIOR FILING DATE: 2003-04-09

28 <150> PRIOR APPLICATION NUMBER: US 10/411,049

29 <151> PRIOR FILING DATE: 2003-04-09

31 <150> PRIOR APPLICATION NUMBER: US 10/410,930

32 <151> PRIOR FILING DATE: 2003-04-09

34 <150> PRIOR APPLICATION NUMBER: US 10/410,897

35 <151> PRIOR FILING DATE: 2003-04-09

37 <150> PRIOR APPLICATION NUMBER: US 10/410,997

38 <151> PRIOR FILING DATE: 2003-04-09

40 <150> PRIOR APPLICATION NUMBER: US 10/411,044

41 <151> PRIOR FILING DATE: 2003-04-09

43 <150> PRIOR APPLICATION NUMBER: US 10/410,980

44 <151> PRIOR FILING DATE: 2003-04-09

46 <150> PRIOR APPLICATION NUMBER: US 10/410,945

47 <151> PRIOR FILING DATE: 2003-04-09

49 <150> PRIOR APPLICATION NUMBER: US 10/410,913

50 <151> PRIOR FILING DATE: 2003-04-09

52 <150> PRIOR APPLICATION NUMBER: US 10/411,037

53 <151> PRIOR FILING DATE: 2003-04-09

55 <150> PRIOR APPLICATION NUMBER: US 10/411,043

56 <151> PRIOR FILING DATE: 2003-04-09

58 <150> PRIOR APPLICATION NUMBER: PCT US2004/011494

59 <151> PRIOR FILING DATE: 2004-04-09

61 <160> NUMBER OF SEQ ID NOS: 75

63 <170> SOFTWARE: PatentIn version 3.2

65 <210> SEQ ID NO: 1

## RAW SEQUENCE LISTING

DATE: 09/01/2006

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Input Set : A:\pto.da.txt

Output Set: N:\CRF4\09012006\J552896.raw

66 &lt;211&gt; LENGTH: 525

67 &lt;212&gt; TYPE: DNA

68 &lt;213&gt; ORGANISM: Homo sapiens

70 &lt;400&gt; SEQUENCE: 1

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75 ctgtgccacc ccgaggagct ggtgctgctc ggacactctc tgggcatccc ctgggctccc      180
77 ctgagcagct gccccagcca ggcctgagcag ctggcaggct gcttgagcca actccatagc      240
79 ggccttttcc tctaccaggg gctcctgcag gccctggaag ggatctcccc cgagttgggt      300
81 cccaccttgg acacactgca gctggacgtc gccgactttg ccaccaccat ctggcagcag      360
83 atggaagaac tgggaatggc ccctgccctg cagcccaccc agggtgccat gccggccttc      420
85 gcctctgctt tccagcgcg ggagaggagg gtcctgggtg cctcccatct gcagagcttc      480
87 ctggaggtgt cgtaccgcgt tctacgccac cttgccccagc cctga                      525

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89 &lt;210&gt; SEQ ID NO: 2

90 &lt;211&gt; LENGTH: 174

91 &lt;212&gt; TYPE: PRT

92 &lt;213&gt; ORGANISM: Homo sapiens

94 &lt;400&gt; SEQUENCE: 2

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98 Cys Leu Glu Gln Val Arg Lys Ile Gln Gly Asp Gly Ala Ala Leu Gln
99          20          25          30
101 Glu Lys Leu Cys Ala Thr Tyr Lys Leu Cys His Pro Glu Glu Leu Val
102          35          40          45
104 Leu Leu Gly His Ser Leu Gly Ile Pro Trp Ala Pro Leu Ser Ser Cys
105          50          55          60
107 Pro Ser Gln Ala Leu Gln Leu Ala Gly Cys Leu Ser Gln Leu His Ser
108 65          70          75          80
110 Gly Leu Phe Leu Tyr Gln Gly Leu Leu Gln Ala Leu Glu Gly Ile Ser
111          85          90          95
113 Pro Glu Leu Gly Pro Thr Leu Asp Thr Leu Gln Leu Asp Val Ala Asp
114          100          105          110
116 Phe Ala Thr Thr Ile Trp Gln Gln Met Glu Glu Leu Gly Met Ala Pro
117          115          120          125
119 Ala Leu Gln Pro Thr Gln Gly Ala Met Pro Ala Phe Ala Ser Ala Phe
120          130          135          140
122 Gln Arg Arg Ala Gly Gly Val Leu Val Ala Ser His Leu Gln Ser Phe
123 145          150          155          160
125 Leu Glu Val Ser Tyr Arg Val Leu Arg His Leu Ala Gln Pro
126          165          170

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128 &lt;210&gt; SEQ ID NO: 3

129 &lt;211&gt; LENGTH: 1733

130 &lt;212&gt; TYPE: DNA

131 &lt;213&gt; ORGANISM: Homo sapiens

133 &lt;400&gt; SEQUENCE: 3

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134 gcgcctctta tgtaccaca aaaatctatt ttcaaaaaag ttgctctaag aatatagtta      60
136 tcaagttaag taaaatgtca atagcctttt aatttaattt ttaattgttt tatcattctt      120
138 tgcaataata aaacattaac tttatacttt ttaatttaat gtatagaata gagatataca      180
140 taggatatgt aaatagatac acagtgtata tgtgattaaa atataatggg agattcaatc      240

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Input Set : A:\pto.da.txt

Output Set: N:\CRF4\09012006\J552896.raw

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146 agtagaaaagt aacacagggg catttgga aaatgaaacga gtatgttccc tatttaaggc 420
148 taggcacaaa gcaaggtctt cagagaacct ggagcctaag gtttaggctc acccatttca 480
150 accagtctag cagcatctgc aacatctaca atggccttga cctttgcttt actggtggcc 540
152 ctctgtgtgc tcagctgcaa gtcaagctgc tctgtgggct gtgatctgcc tcaaaccac 600
154 agcctgggta gcaggaggac cttgatgtct ctggcacaga tgaggagaat ctctcttttc 660
156 tcctgcttga aggacagaca tgacttttga tttcccagg aggagtttgg caaccagttc 720
158 caaaaggctg aaaccatccc tgtcctccat gagatgatcc agcagatctt caatctcttc 780
160 agcacaaaag actcatctgc tgcctgggat gagaccctcc tagacaaatt ctacactgaa 840
162 ctctaccagc agctgaatga cctggaagcc tgtgtgatac agggggtggg ggtgacagag 900
164 actcccctga tgaaggagga ctccattctg gctgtgagga aatacttcca aagaatcact 960
166 ctctatctga aagagaagaa atacagccct tgtgcctggg aggttgtcag agcagaaatc 1020
168 atgagatctt tttcttctg aacaaacttg caagaaagtt taagaagtaa ggaatgaaaa 1080
170 ctggttcaac atggaaatga ttttcattga ttctgtatgc agctcacctt tttatgatct 1140
172 gccatttcaa agactcatgt ttctgctatg accatgacac gatttaaatc ttttcaaatt 1200
174 tttttaggag tattaatcaa cattgtattc agctcttaag gcactagtcc cttacagagg 1260
176 accatgctga ctgatccatt atctatttaa atatttttaa aatattattt atttaactat 1320
178 ttatagaaac acttattttt gttcatatta tgtcatgtgc acctttgcac agtgggtaat 1380
180 gtaataaaat gtgttctttg tatttggtaa atttattttg tgttgttcac tgaacttttg 1440
182 ctatggaact tttgtacttg tttattcttt aaaatgaaat tccaagccta attgtgcaac 1500
184 ctgattacag aataactggg acacttcatt tgtccatcaa tattatattc aagatataag 1560
186 taaaaataaa ctttctgtaa accaagttgt atgttgtact caagataaca ggggtgaacct 1620
188 aacaaatata attctgctct cttgtgtatt tgatttttgt atgaaaaaaa ctaaaaatgg 1680
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192 &lt;210&gt; SEQ ID NO: 4

193 &lt;211&gt; LENGTH: 188

194 &lt;212&gt; TYPE: PRT

195 &lt;213&gt; ORGANISM: Homo sapiens

197 &lt;400&gt; SEQUENCE: 4

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199 1 5 10 15
201 Lys Ser Ser Cys Ser Val Gly Cys Asp Leu Pro Gln Thr His Ser Leu
202 20 25 30
204 Gly Ser Arg Arg Thr Leu Met Leu Leu Ala Gln Met Arg Arg Ile Ser
205 35 40 45
207 Leu Phe Ser Cys Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu
208 50 55 60
210 Glu Phe Gly Asn Gln Phe Gln Lys Ala Glu Thr Ile Pro Val Leu His
211 65 70 75 80
213 Glu Met Ile Gln Gln Ile Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser
214 85 90 95
216 Ala Ala Trp Asp Glu Thr Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr
217 100 105 110
219 Gln Gln Leu Asn Asp Leu Glu Ala Cys Val Ile Gln Gly Val Gly Val
220 115 120 125
222 Thr Glu Thr Pro Leu Met Lys Glu Asp Ser Ile Leu Ala Val Arg Lys
223 130 135 140
225 Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Lys Glu Lys Lys Tyr Ser Pro

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TIME: 12:13:41

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\09012006\J552896.raw

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226 145          150          155          160
228 Cys Ala Trp Glu Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser Leu
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231 Ser Thr Asn Leu Gln Glu Ser Leu Arg Ser Lys Glu
232          180          185
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235 <211> LENGTH: 757
236 <212> TYPE: DNA
237 <213> ORGANISM: Homo sapiens
239 <400> SEQUENCE: 5
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242 tccatgagct acaacttgct tggattccta caaagaagca gcaattttca gtgtcagaag 120
244 ctctgtggc aattgaatgg gaggttgaa tattgcctca aggacaggat gaactttgac 180
246 atccctgagg agattaagca gctgcagcag ttccagaagg aggacgccgc attgaccatc 240
248 tatgagatgc tccagaacat ctttgctatt ttcagacaag attcatctag cactggctgg 300
250 aatgagacta ttgttgagaa cctcctggct aatgtctatc atcagataaa ccatctgaag 360
252 acagtcctgg aagaaaaact ggagaaagaa gattttacca ggggaaaaact catgagcagt 420
254 ctgcacctga aaagatatta tgggaggatt ctgcattacc tgaaggccaa ggagtacagt 480
256 cactgttcct ggaccatagt cagagtgga atcctaagga acttttactt catatacaga 540
258 cttacagggtt acctccgaaa ctgaagatct cctagcctgt ccctctggga ctggacaatt 600
260 gcttcaagca ttcttcaacc agcagatgct gtttaagtga ctgatggcta atgtactgca 660
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267 <211> LENGTH: 187
268 <212> TYPE: PRT
269 <213> ORGANISM: Homo sapiens
271 <400> SEQUENCE: 6
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273 1          5          10          15
275 Thr Thr Ala Leu Ser Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg
276          20          25          30
278 Ser Ser Asn Phe Gln Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg
279          35          40          45
281 Leu Glu Tyr Cys Leu Lys Asp Arg Met Asn Phe Asp Ile Pro Glu Glu
282          50          55          60
284 Ile Lys Gln Leu Gln Gln Phe Gln Lys Glu Asp Ala Ala Leu Thr Ile
285 65          70          75          80
287 Tyr Glu Met Leu Gln Asn Ile Phe Ala Ile Phe Arg Gln Asp Ser Ser
288          85          90          95
290 Ser Thr Gly Trp Asn Glu Thr Ile Val Glu Asn Leu Leu Ala Asn Val
291          100         105         110
293 Tyr His Gln Ile Asn His Leu Lys Thr Val Leu Glu Glu Lys Leu Glu
294          115         120         125
296 Lys Glu Asp Phe Thr Arg Gly Lys Leu Met Ser Ser Leu His Leu Lys
297          130         135         140
299 Arg Tyr Tyr Gly Arg Ile Leu His Tyr Leu Lys Ala Lys Glu Tyr Ser
300 145         150         155         160
302 His Cys Ala Trp Thr Ile Val Arg Val Glu Ile Leu Arg Asn Phe Tyr

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## RAW SEQUENCE LISTING

DATE: 09/01/2006

PATENT APPLICATION: US/10/552,896

TIME: 12:13:41

Input Set : A:\pto.da.txt

Output Set: N:\CRF4\09012006\J552896.raw

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318 gcgttccttg aggagctgcg gccgggctcc ctggagaggg agtgcaagga ggagcagtgc 180
320 tccttcgagg aggcccgga gatcttcaag gacgcggaga ggacgaagct gttctggatt 240
322 tcttacagt atggggacca gtgtgcctca agtccatgcc agaatggggg ctccctgcaag 300
324 gaccagctcc agtcctatat ctgcttctgc ctccctgcct tcgagggccg gaactgtgag 360
326 acgcacaagg atgaccagct gatctgtgtg aacgagaacg gcggtgtgta gcagtactgc 420
328 agtgaccaca cgggcaccaa gcgtcctgt cggtgccacg aggggtactc tctgctggca 480
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332 aaaagaaatg ccagcaaacc ccaaggccga attgtggggg gcaagggtgtg ccccaaaggg 600
334 gagtgtgcat ggcaggtcct gttgtgtgtg aatggagctc agttgtgttg ggggacctg 660
336 atcaacaacca tctgggttgt ctccgcggcc cactgtttcg acaaaatcaa gaactggagg 720
338 aacctgatcg cggtgctggg cgagcacgac ctacgcgagc acgacgggga tgagcagagc 780
340 cggcggtgtg cgcaggtcat catcccagc acgtacgtcc cgggcaccac caaccacgac 840
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352 gacagtggag gccacatgc caccactac cggggcacgt ggtacctgac gggcatcgtc 1200
354 agctggggcc agggctgcgc aaccgtgggc cactttgggg tgtacaccag ggtctccag 1260
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368 Gly Cys Leu Ala Ala Val Phe Val Thr Gln Glu Glu Ala His Gly Val
369          20          25          30
371 Leu His Arg Arg Arg Arg Ala Asn Ala Phe Leu Glu Glu Leu Arg Pro
372          35          40          45
374 Gly Ser Leu Glu Arg Glu Cys Lys Glu Glu Gln Cys Ser Phe Glu Glu
375          50          55          60
377 Ala Arg Glu Ile Phe Lys Asp Ala Glu Arg Thr Lys Leu Phe Trp Ile
378 65          70          75          80
380 Ser Tyr Ser Asp Gly Asp Gln Cys Ala Ser Ser Pro Cys Gln Asn Gly
381          85          90          95
383 Gly Ser Cys Lys Asp Gln Leu Gln Ser Tyr Ile Cys Phe Cys Leu Pro

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**VERIFICATION SUMMARY**

DATE: 09/01/2006

PATENT APPLICATION: US/10/552,896

TIME: 12:13:42

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Output Set: N:\CRF4\09012006\J552896.raw



**Raw Sequence Listing before editing,  
for reference only**



IFWP

## RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/552,896

TIME: 10:22:21

Input Set : A:\040853-01-5051US01 seq list.TXT

Output Set: N:\CRF4\08282006\J552896.raw

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3 <110> APPLICANT: Neose Technologies, Inc.  
 4 DeFrees, Shawn  
 5 Zopf, David  
 6 Bayer, Robert  
 7 Hakes, David  
 8 Chen, Xi  
 9 Bowe, Caryne

11 <120> TITLE OF INVENTION: GLYCOPEGYLATION METHODS AND PROTEINS/PEPTIDES PRODUCED BY

12 METHODS

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28 <150> PRIOR APPLICATION NUMBER: US 10/411,049

29 <151> PRIOR FILING DATE: 2003-04-09

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55 <150> PRIOR APPLICATION NUMBER: US 10/411,043

56 <151> PRIOR FILING DATE: 2003-04-09

58 <150> PRIOR APPLICATION NUMBER: PCT US2004/011494

59 <151> PRIOR FILING DATE: 2004-04-09

61 <160> NUMBER OF SEQ ID NOS: 75

63 <170> SOFTWARE: PatentIn version 3.2

Does Not Comply  
 Corrected Diskette Needed  
 (PS-2)

## RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/552,896

TIME: 10:22:21

Input Set : A:\040853-01-5051US01 seq list.TXT

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4817 35 40 45  
4819 Pro Phe Leu Cys Leu Lys Asp Arg Arg Asp Phe Arg Phe Pro Gln Glu  
4820 50 55 60  
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4825 His Glu Met Leu Gln Ile Phe Ser Leu Phe His Thr Glu Arg Ser  
4826 85 90 95  
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4832 115 120 125  
4834 Glu Gly Glu Ser Ala Gly Ala Ile Ser Ser Pro Ala Leu Thr Leu Arg  
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4837 Arg Tyr Phe Gln Gly Ile Arg Val Tyr Leu Lys Glu Lys Lys Tyr Ser  
4838 145 150 155 160  
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4841 165 170 175  
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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 08/28/2006  
PATENT APPLICATION:    US/10/552,896      TIME: 10:22:22

Input Set : A:\040853-01-5051US01 seq list.TXT  
Output Set: N:\CRF4\08282006\J552896.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:75; Line(s) 4863

## VERIFICATION SUMMARY

DATE: 08/28/2006

PATENT APPLICATION: US/10/552,896

TIME: 10:22:22

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Output Set: N:\CRF4\08282006\J552896.raw

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L:4863 M:330 E: (2) Invalid Amino Acid Designator, NUMBER OF INVALID KEYS:1  
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M:332 Repeated in SeqNo=75  
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